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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KONSTANTINOS POULAKIS

Appeal 2008-1292
Application 10/019,397
Technology Center 1700

Decided: April 30, 2008

Before BRADLEY R. GARRIS, PETER F. KRATZ, and
JEFFREY T. SMITH, *Administrative Patent Judges*.

SMITH, *Administrative Patent Judge*.

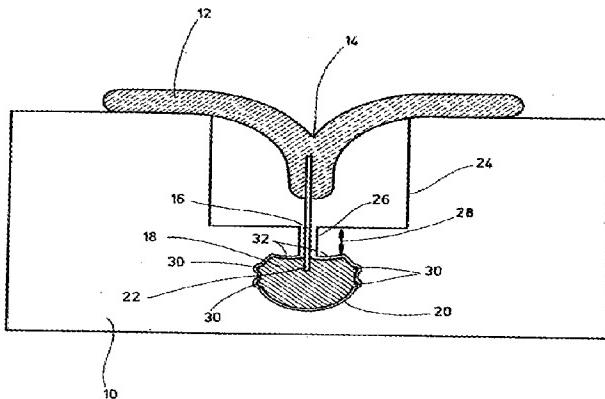
DECISION ON APPEAL

Statement of the Case

This is an appeal under 35 U.S.C. § 134 from a final rejection of claims 11-26, 28-38, and 43-45. We have jurisdiction under 35 U.S.C. § 6.

Appellant's invention, relates to a particular method for producing a flexible shaped strip (18) suitable for securing a cushion covering (12) to a

cushion component (10) formed of foam material. The features of the claimed invention are demonstrated in Figure 1 which appears below.



Representative claims 11, 30, and 34 appear below:

11. A method for producing a flexible shaped strip for securing a cushion covering a cushion component formed of foam material and provided with a longitudinal passage for engaging the shaped strip, comprising the steps of:

forming the shaped strip from plastic material for engaging the longitudinal passage in the cushion component and securing the covering to the cushion component; and

providing a slip-preventer at least partially on an exterior periphery of the shaped strip, the slip-preventer being a plastic material softer than the plastic material, of the shaped strip;

whereby, the slip-preventer increases tear resistance of the shaped strip to resist inadvertent removal of the shaped strip from the longitudinal passage in the cushion component.

30. A method for producing a flexible shaped strip for securing a cushion covering to a cushion component formed of foam material and being provided with a longitudinal passage for engaging the shaped strip, comprising the steps of:

forming the shaped strip from plastic material, the strip having a top surface with a longitudinal slot, a fastener received in the slot and coupled to the shaped strip, and longitudinal interlocking

members on side surfaces of the strip defining recessed areas between the interlocking members; and

providing a slip-preventer on said top surface of the strip, the slip-preventer being a plastic material softer than the plastic material of the shaped strip to reduce slippage between the strip and the foam material and to increase tear resistance of the shaped strip to resist inadvertent removal of the shaped strip from the longitudinal passage in the cushion component.

34. A method for producing a flexible shaped strip and securing a cushion covering to a foamed cushion material having a longitudinal passage for engaging the strip, comprising the steps of:

forming the shaped strip from a first plastic material, the strip having a top surface with a longitudinal slot, a fastener received in the slot and coupled to the shaped strip and to the cushion covering material, the shaped strip having a plurality of longitudinal interlocking members on side surfaces;

applying a second plastic material on a surface of the shaped strip to provide a slip preventing material on the shaped strip, the second plastic material being softer than the first plastic material to decrease slippage between the shaped strip and the foamed cushion material; and

inserting the shaped strip into the longitudinal passage of the foamed cushion material such that the second plastic material directly engages the foamed cushion material.

The Examiner relies on the following references in rejecting the appealed subject matter:

Esler	US 3,876,495	Apr. 8, 1975
Tolle	US 4,057,956	Nov. 15, 1977
Maruyama	US 4,718,718	Jan. 12, 1988
Boon	US 4,874,670	Oct. 17, 1989
Engelson	US 5,095,915	Mar. 17, 1992
Schulte '078	ZA 9805078A	Mar. 31, 1999
Schulte '382	US 6,478,382	Nov. 12, 2002

The following rejections are presented for review:¹

- 1) Claims 11, 15, 17, and 28 stand rejected as unpatentable under 35 U.S.C. § 103(a) over Esler.
- 2) Claims 11, 12, 15, 17, 22-24, 28, and 30-32 stand rejected under 35 U.S.C. § 103(a) over Schulte² in view of Esler and Maruyama.
- 3) Claims 12-14, 32, and 33 stand rejected under 35 U.S.C. § 103(a) over Schulte in view of Esler and Maruyama and further in view of Tolle.
- 4) Claims 18, 19, 25, and 26 stand rejected under 35 U.S.C. § 103(a) over Schulte in view of Esler and Maruyama and further in view of Engelson.
- 5) Claims 20 and 21 stand rejected under 35 U.S.C. § 103(a) over Schulte in view of Esler and Maruyama and further in view of Boon.
- 6) Claims 11, 29, 34-38, and 43-45 stand rejected under 35 U.S.C. § 103(a) over Schulte in view of Esler and Maruyama and further in view of the alleged admitted prior art³.

We REVERSE.

The Examiner bears the initial burden of presenting a prima facie case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). In

¹ We note that the Examiner has not accounted for claim 16 in any of the stated rejections. Claim 16 depends upon claim 11. Consequently, for the purposes of this appeal, we consider the patentability of claims 16 to stand with claim 11.

² It is noted that the Examiner has relied on U.S. Patent 6,478,382 as an English language translation of South African patent ZA 9805087A. The Appellant has not objected to the use of the U.S. patent for this purpose by the Examiner.

³ The Examiner cites the discussion appearing on page 2 of the Specification as admitted prior art.

order to establish a *prima facie* case of obviousness, the Examiner must show that each and every limitation of the claim is described or suggested by the prior art or would have been obvious based on the knowledge of those of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 1074 (Fed. Cir. 1988)).

“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (*quoted with approval in KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007)).

Obviousness rejection over Esler

The Examiner contends that Esler discloses a flexible cord for seats which has a core formed from polymer fibers which is covered in an extruded foam coating which reduces the slippage of the cord. Specifically the Examiner states:

Esler discloses a flexible cord for seats which has a core formed from polymer fibers which is covered in an extruded foam coating which reduces the slippage of the cord.[](Col. 2, ll. 2-17; Col. 3, ll. 48-50; Col. 6, ll. 57)[.] The material is capable of securing a cover to a cushion. The coating increases tear resistance since it decreases the slippage. It is noted that the claim does not require the insertion of the cord into the cushion, but rather only that it is capable of doing so. Since the cord is thin enough and flexible enough to be inserted into a cushion, it is capable of being inserted. While the reference does not disclose the hardnesses of the core or foam coating, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the foam coating softer than the core since the foam coating, which is intended to be velvety and flexible[] (Col. 3, ll. 41) would be softer than a material which is intended to be reinforcing[](Col. 2, ll. 23) particularly since reinforcing implies that the core is stronger than the foam by itself. It is noted there is nothing in the claim positively requiring the softness of the plastic material to

refer to the composition of the plastic material rather than its structural properties. (Ans. 3-4).

Appellant contends that Esler describes a welting cord that is wrapped by a fabric to provide a decorative feature to the finished article. Appellant contends that the reinforcing member of Esler is not a shaped strip capable of attaching a cover to a foam cushion component. Appellant contends that there is no structure disclosed by Esler that would enable the welting cord to connect a fabric or cover to a foam cushion. Appellant contends that Esler does not disclose providing a slip preventing coating on the exterior of a shaped strip where the slip preventer coating is a plastic softer than the plastic material of the shaped strip. Appellant contends that the Examiner has not established that the foam material of Esler is a softer material than the fibers forming the core. (App. Br. 6-7).

The Examiner has not cited any support or authority for her position regarding the tear resistance and hardness of the welting cord as well as the suitability of attaching a cover to a foam cushion component. The Examiner has simply speculated that the welting cord of Esler comprises a softer exterior to the reinforcing member. Esler describes welting cords having an exterior surface adapted to cooperate with upholstery boxing strips for upholstered cushions. (Esler, col. 1, l. 63-col. 2, l. 1). The invention of Esler was designed to overcome the problems of the prior art wherein the welting cords would slip in the fabric that formed the boxing strip. (Esler, col. 1, ll. 35-40). Esler discloses the velvety exterior of the welting cord prevent slippage of the cord within the fabric boxing strip. (Esler, col. 2, ll. 14-17). Esler referring to Figure 1 discloses “[t]he welting cord provided by the invention is utilized in a conventional boxing strip comprising a fabric

10, the edges 12 of which are folded over the welting cord 20 of the invention. The edges 12 are attached at their very ends to the fabric 10 by means such as glue or stitching 14. The boxing strip is then combined with other fabric pieces to enclose an upholster cushion.” (Esler, col. 2, ll. 56-64). Esler has not disclosed that the welting cord is suitable for use within a longitudinal passage of a foamed cushion. Esler has not disclosed that the exterior foamed surface, which provides anti-slip properties relative to fabric, would have been suitable for providing slip-preventing properties within a longitudinal passage of a foamed cushion. Esler has not disclosed the softness/hardness of either the exterior surface of the foam welting cord or the internal reinforcing element. Esler has not recognized a problem with tearing of the foamed welting cord. Esler has not disclosed that the exterior foamed surface of the welting cord increases the tear resistance of the internal reinforcing member.

As such, the Examiner’s conclusion of obviousness is not supported by any reasonable basis in the reference as to the desirability of performing a method for producing a flexible shaped strip suitable for securing a cushion covering to a cushion component formed of foam material. Rather, we are left with the Examiner’s after-the-fact unsupported conclusory statements. Rejections based on conclusory statements and not demonstrable evidence is insufficient to support a *prima facie* case of unpatentability. *See KSR supra.*

Obviousness rejections over Schulte, Esler, and Maruyama⁴

The Examiner contends that Schulte discloses a flexible shaped strip which serves to secure a cover to a foamed seat cushion having a

⁴ Our analysis applies to all the independent claims.

longitudinal slit into which the strip is applied. (Figures 1 and 2; Abstract; Schulte, col. 1, ll. 6-13; Col. 4, l. 3). The Examiner contends that Schulte discloses the shaped strip comprises anti-slip means. (Schulte, col. 3, ll. 52-57). However, the Examiner contends that Schulte does not disclose the anti-slip means. (Ans. 4). The Examiner contends Esler discloses coating a strip used in seats with a foam material to prevent slippage of the strip relative to the material surrounding it. The Examiner further contends that Maruyama discloses applying a rubber layer to the outside of a wire strip which secures a cover to a foamed seat cushion. (Ans. 4). The Examiner concludes “[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to coat the shaped strip of Schulte with a material which is anti-slip as shown in Esler since Schulte discloses using anti-slip means but is silent as to the exact nature of those means, since Esler discloses coating a plastic core with a soft, flexible plastic material to prevent slippage of the strip when used in a seat cushion, and since Maruyama et al. discloses it is known to coat strips that perform the same function, namely holding seat covers in seat cushions with rubber which is an anti-slip material.” (Ans. 4-5).

Appellant contends that the combination of Schulte, Esler, and Maruyama does not disclose or suggest the claimed invention, since the combination of the cited patents does not suggest a method of producing a shaped strip and coating the shaped strip with a slip preventive material that is softer in comparison to the plastic material of the shaped strip. (App. Br. 10-12). Appellant contends that Schulte is cited for disclosing a strip for securing a cover to a seat cushion, but does not disclose a slip preventive coating as required by the claimed invention. Appellant contends that Esler

is cited for disclosing a foam body over a fiber core, while Maruyama is cited for disclosing a rubber layer on an electric wire. (App. Br. 10-12).

We agree with Appellant that it would not have been obvious to a person of ordinary skill in the art to modify Schulte based on the Esler and Maruyama as suggested by the Examiner. (App. Br. 11). Schulte discloses that the ribs of the shaped strip are sufficient to fasten the strip to a foam body. Specifically, Schulte discloses the anchoring elements 14 are utilized for adhering shaped strip in the recesses 18 of the foamed body. (Schulte, col. 3, ll. 52-61). Schulte does not indicate that a coating or other slip preventing material is needed to function as intended. Thus, one skilled in the art would not have been motivated to modify the strip of Schulte.

Even if Schulte indicated that an additional anti-slip coating was necessary, we agree with the Appellant that the foam welting cord of Esler is not relevant to the fastener of Schulte or the claimed invention. (App. Br. 11). The foam layer on the core of Esler is formed to provide sufficient volume or bulk to function as a welting cord. The Examiner has not addressed how the bulk of the foam from Esler would have been suitable for incorporation into the invention of Schulte. Furthermore, even if it were appropriate to combine the teachings of Esler with Schulte, this combination would not result in the claimed invention for the reasons discussed above regarding Esler. That is, Esler does not disclose that the exterior foamed surface, which provides anti-slip properties relative to fabric, would have been suitable for providing slip-preventing properties within a longitudinal passage of a foamed cushion. Esler does not disclose the softness/hardness of the foam surface of the welting cord. The Examiner has not explained

why this foam material is necessarily softer than the core material of Schulte and would increase the tear resistance thereof.

We also agree with Appellant's arguments regarding Maruyama. (App. Br. 11-12). Maruyama relates to a trim cover having an electric heater. The Examiner contends that Maruyama discloses holding seat covers in seat cushions with rubber which is an anti-slip material. (Ans. 4-5). Maruyama discloses wires 15b is covered with a rubber 15c to prevent the wire from striking against and rubbing the heater of the seat cushion. (Maruyama, col. 3, ll. 27-30). Thus, it appears as though the rubber of Maruyama is sized and shaped for insulation purposes and not for anti-slip properties as suggested by the Examiner. The Examiner has not adequately addressed why a person of ordinary skill in the art would have been motivated to utilize an insulating rubber material as a coating for the shaped strip of Schulte. Furthermore, the Examiner has not adequately addressed why the rubber component of Maruyama would necessarily have been softer than the strip of Schulte.

As such, the Examiner's conclusion of obviousness is not supported by any reasonable basis in the references as to the desirability of performing a method for producing a flexible shaped strip suitable for securing a cushion covering to a cushion component formed of foam material as stated in the independent claims.

Since we reverse for the lack of the presentation of a prima facie case of obviousness by the Examiner, we need not reach the issue of the sufficiency of the evidence as allegedly demonstrating conception and

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Application 10/019,397

reduction to practice of the invention before the date of the Schulte reference.

ORDER

The Examiner's decision rejecting claims 11-26, 28-38, and 43-45 is reversed.

REVERSED

PL Initial:
sld

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